

**AMENDMENTS TO THE CLAIMS**

This Listing of Claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A key maintenance method comprising:  
maintaining, in a datastore residing on a data storage device a first-level access key that grants, to a first medical service provider, a first level of access to a set of medical records of a patient;  
receiving, from the patient, a selection of a second level of access for a second medical service provider to receive a second-level access key, wherein the second level of access provides access to one of more or less information ~~[[of]]contained in~~ the patient's medical records than the first level of access;  
retrieving the first-level access key; and  
generating the second-level access key for the second medical service provider by the a patient computer based on the patient's selection of the second level of access for the second medical service provider, wherein the first-level access key is modified based on the second level of access to generate the second-level access key.
2. (Original) The key maintenance method of claim 1 wherein:  
the levels of access of the first-level and second-level access keys are defined using one or more access parameters;  
the set of medical records is a multi-portion medical record; and  
the access parameters provide access to one or more portions of the set of medical records.
3. (Previously Presented) The key maintenance method of claim 1 further comprising transmitting the second-level access key to the medical service provider, wherein the medical service provider subsequently stores the second level access key on a medical service provider (MSP) key repository assigned to the medical service provider.
4. (Original) The key maintenance method of claim 1 further comprising storing the second-level access key in the datastore.

5. (Original) The key maintenance method of claim 4 further comprising deleting the first-level access key from the datastore.
6. (Original) The key maintenance method of claim 4 wherein the datastore is a patient key repository assigned to the patient.
7. (Previously Presented) The key maintenance method of claim 6 wherein the first-level access key was previously-provided to the medical service provider and previously-stored on a medical service provider (MSP) key repository assigned to the medical service provider.
8. (Original) The key maintenance method of claim 7 wherein:  
the patient key repository is a first portion of a centralized key repository; and  
the MSI' key repository is a second portion of the centralized key repository.
9. (Original) The key maintenance method of claim 8 wherein the centralized key repository resides on and is executed by a remote server connected to a distributed computing network.
10. (Original) The key maintenance method of claim 9 wherein:  
the remote server is a web server; and  
the distributed computing network is the Internet.
11. (Original) The key maintenance method of claim 7 further comprising reconciling the patient key repository and the MSP key repository.
12. (Original) The key maintenance method of claim 11 wherein reconciling includes overwriting the first-level access key stored within the MSP key repository with the second-level access key stored in the patient key repository.

13. (Original) The key maintenance method of claim 1 wherein the second-level access key enhances the level of access of the first level access key, wherein the medical service provider is granted a greater level of access to the set of medical records of the patient.

14. (Original) The key maintenance method of claim 1 wherein the second-level access key reduces the level of access of the first level access key, wherein the medical service provider is granted a reduced level of access to the set of medical records of the patient.

15. (Original) The key maintenance method of claim 1 wherein the second-level access key revokes the level of access of the first level access key, wherein the medical service provider is prohibited from accessing the set of medical records of the patient.

16. (Currently Amended) A key maintenance method comprising:  
maintaining, in a datastore, a first-level access key that grants, to a first medical service provider, a first level of access to a set of medical records of a patient;  
associating, by a key organization system that is communicatively coupled to said datastore, said first-level access key with said first medical service provider. wherein said key organization system comprises a processor-based computer;

receiving, by the key organization system, a selection of a second level of access for a second medical service provider to receive a second-level access key, wherein the second level of access provides access to one of more or less information [[of]]contained in the patient's medical records than the first level of access;

retrieving, by the key organization system, the first -level access key;

generating, by the key organization system, the second-level access key for the second medical service provider by modifying the level of access of the first-level access key based on the selection of the second level of access for the second medical service provider, said second-level access key granting, to the second medical service provider, the second level of access to the set of medical records of the patient;

deleting, by the key organization system, the first-level access key from the datastore;

associating, by the key organization system, said second-level access key with said second medical service provider;

identifying, by said key organization system, the second medical service provider; and responsive to said second medical service provider requesting access to the set of medical records of the patient, said key organization system using said second-level access key for granting said second medical service provider said second level of access to the set of medical records of the patient.

17. (Original) The key maintenance method of claim 16 wherein the datastore is a patient key repository assigned to the patient.

18. (Previously Presented) The key maintenance method of claim 17 wherein the first-level access key was previously-provided to the first medical service provider and previously-stored on a medical service provider (MSP) key repository assigned to the first medical service provider.

19. (Original) The key maintenance method of claim 18 wherein:  
the patient key repository is a first portion of a centralized key repository; and  
the MSP key repository is a second portion of the centralized key repository.

20. (Original) The key maintenance method of claim 19 wherein the centralized key repository resides on and is executed by a remote server connected to a distributed computing network.

21. (Original) The key maintenance method of claim 20 wherein:  
the remote server is a web server; and  
the distributed computing network is the Internet.

22. (Currently Amended) A key maintenance system comprising:  
a server system including a computer processor and associated memory, the server system communicatively coupled to a centralized key repository and a centralized medical record repository;

wherein the server system is configured to:

maintain, in a datastore, a first-level access key that grants, to a first medical service provider, a first level of access to a set of medical records of a patient;

receiving, from the patient, a selection of a second level of access for a second medical service provider to receive a second-level access key, wherein the second level of access provides access to one or more or less information [[of]]contained in the patient's medical records than the first level of access;

retrieve the first-level access key; and

generating the second-level access key for the second medical service provider based on the patient's selection of the second level of access for the second medical service provider, wherein the first-level access key is modified based on the second level of access to generate the second-level access key;

store the second-level access key in the datastore; and

wherein said server system is further configured to, responsive to receipt of a request by the medical service provider to access the set of medical records of the patient, use the second-level access key to grant said medical service provider the modified level of access.

23. (Canceled)

24. (Original) The key maintenance system of claim 23 wherein the datastore is a patient key repository assigned to the patient.

25. (Previously Presented) The key maintenance system of claim 24 wherein the first-level access key was previously-provided to the medical service provider and previously-stored on a medical service provider (MSP) key repository assigned to the medical service provider.

26. (Original) The key maintenance system of claim 25 wherein:  
the patient key repository is a first portion of a centralized key repository; and  
the MSP key repository is a second portion of the centralized key repository.

27. (Original) The key maintenance system of claim 26 wherein the centralized key repository resides on and is executed by a remote server connected to a distributed computing network.

28. (Original) The key maintenance system of claim 27 wherein:  
the remote server is a web server; and  
the distributed computing network is the Internet.

29. (Canceled)

30. (Currently Amended) A computer program product residing on a computer readable medium of a server that is communicatively coupled to a communication network, said computer program product having a plurality of instructions stored thereon which, when executed by a processor of said server, cause that processor to:

maintain, in a datastore that is communicatively coupled to said server, a first-level access key that grants, to a medical service provider, a first level of access to a set of medical records of a patient;

receive, via said communication network, a request from said patient to modify the first level of access granted to the medical service provider by the first-level access key to a second level of access, wherein the first level of access provides access to one of more or less information [[of]]contained in the patient's medical records than the second level of access;

retrieve the first-level access key;

generate a second-level access key by modifying the level of access of the first-level access key to a second level of access as specified in the received request from said patient;

identify the medical service provider;

receive, via said communication network, a request from said medical service provider to access the set of medical records of the patient; and

responsive to said received request, use said second-level access key for granting said medical service provider the modified level of access to the set of medical records of the patient.

31. (Original) The computer program product of claim 30 further comprising instructions for storing the second-level access key in the datastore.

32. (Original) The computer program product of claim 30 further comprising instructions for deleting the first-level access key from the datastore.

33. (Original) The computer program product of claim 30 wherein the datastore is a patient key repository assigned to the patient.

34. (Previously Presented) The computer program product of claim 33 wherein the first-level access key was previously-provided to the medical service provider and previously-stored on a medical service provider (MSP) key repository assigned to the medical service provider.

35. (Original) The computer program product of claim 34 further comprising instructions for reconciling the patient key repository and the MSP key repository.

36. (Original) The computer program product of claim 35 wherein the instructions for reconciling include instructions for overwriting the first-level access key stored within the MSP key repository with the second-level access key stored in the patient key repository.

37. (Previously Presented) The key maintenance method of claim 1 wherein said retrieving and generating are performed by a key organization system that is communicatively coupled to said datastore, wherein said key organization system comprises a processor-based computer.

38. (Previously Presented) The key maintenance method of claim 37 further comprising:

associating, by the key organization system, said second-level access key with a corresponding medical service provider for whom the modified level of access is granted by the patient;

identifying, by said key organization system, said corresponding medical service provider as logging in to the key organization system; and

responsive to said corresponding medical service provider requesting access to the set of medical records of the patient, said key organization system using said second-level access key for granting said corresponding medical service provider said modified level of access to the set of medical records of the patient.

39. (Cancelled)

40. (Previously Presented) The key maintenance method of claim 16 wherein said first medical service provider and said second medical service provider are the same medical service provider.

41.- 43. (Cancelled).

44. (Previously Presented) The key maintenance system of claim 22 wherein said second-level access key is not stored locally to a client computer of said medical service provider.